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Dear Mr Stuart

Education Committee Evidence Check

I am writing in response to your invitation to submit views on the strength of evidence used for policy making by the Department for Education (DfE). This is an important area for the Wellcome Trust and we are pleased to comment. We use, wherever possible, an evidence-based approach towards improving science education, and are committed to increasing the quality, quantity and accessibility of the evidence that is available to teachers, technicians, school leaders and governors.

DfE is increasingly acknowledging the importance of evidence in education, demonstrated, for example, by the commissioned review from Ben Goldacre¹ in 2013 and its 15 year funding commitment to the Education Endowment Foundation (EEF) in 2011. We have been pleased to work with the EEF on our Education and Neuroscience initiative — this aims to build expertise at the interface between neuroscience and education, and ensure that educators can make informed choices. DfE also contributes to the research base through surveys such as the Longitudinal Study of Young People in England.

However, DfE's investment in research to inform policy, including monitoring the impact of new initiatives, must be adequately funded. The science, engineering and technology statistics² show that DfE's research and development budget halved in just one year from £28 million in 2010/11 to £13 million in 2011/12. We are concerned that the Department will be unable to produce vital evidence on new initiatives and evaluate policy changes, and could become reliant on external organisations to fund necessary research. In fact, the Gatsby Charitable Foundation, the Nuffield Foundation and the Wellcome Trust will be carrying out a long-term monitoring programme to capture changes in the quality and quantity of practical science in UK schools in order to evaluate the impact of recent curriculum and assessment reform. Arguably, DfE should be responsible for leading such critical research, but with current research budgets, this seems less and less likely.

DfE's Chief Scientific Adviser should provide scientific advice to Ministers, and they should ensure that they apply the 'Principles of scientific advice to government'³. These include "publicly explain[ing] the reasons for policy decisions, particularly when the decision is not consistent with scientific advice and in doing so, should accurately represent the evidence". It is essential to be transparent when evidence is not available, or not available to an appropriate standard. DfE should also be more stringent in ensuring there is robust research into the necessity of new initiatives including curriculum change; consulting the available evidence, and ensuring there is sufficient

¹ 'Building evidence into education', Ben Goldacre, 2013

² 'CaSE analysis of departmental R&D spend 2011/12', CaSE, 2014

³ 'Principles of scientific advice to government', Government Office for Science, 2010

time for piloting and to make necessary adjustments if the testing indicates that wider implementation is appropriate.

The teaching workforce should be actively encouraged to use evidence to improve practice. We support the proposed College of Teaching and its intention to increase the professional status of teaching and drive forward the culture change which is already starting to make this a more evidence-based profession. The College is a good opportunity to make evidence more accessible to teachers and create a structure where they are rewarded for using good evidence in practice, as well as accessing high-quality continuing professional development (CPD). We continue to work with the National Science Learning Centre to test and improve its delivery of subject-specific CPD for science teachers and technicians, which DfE also contributes to through Project ENTHUSE.

We would be happy to discuss any of these points in more detail with the committee, and appreciate the opportunity to input into this evidence check. We are pleased that evidence in education is high on the agenda for 2015.

Yours sincerely

Hilary Leever
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Wellcome Trust